



clarion

Owner's manual

APX2180
APX4360
DPX2250
DPX1800
DPX11500

APX AND DPX AMPLIFIERS



English

Thank you for purchasing this **Clarion** product.

- Please read this owner's manual in its entirety before operating this equipment.
- After reading this manual, keep it handy, such as in your glove compartment.
- Save your sales receipt. The warranty at the end of this manual and your sales receipt are essential for warranty service.

FCC Approval

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to consult the dealer or an experienced radio/TV technician for help.



Contents

1. FEATURES	4
2. PRECAUTIONS	5
Installation	5
3. CONTROLS	6
4. OPERATIONS	8
Setting input voltage	8
Setting the operating level	8
Improving bass sound	8
Matching subwoofer output to mid-range speakers	9
Connecting directly to a head unit	9
Care and maintenance	9
5. INSTALLATION AND WIRING	10
What is included in the box	10
Mounting precautions	10
Wiring precautions	11
Power and speaker connections	13
Applications	15
DPX1800 and DPX11500 stackable configurations	19
Setting the gain	19
Adjusting the crossover	20
Setting the bass boost	20
Final system checks	20
6. TROUBLESHOOTING	21
Indicator lights	21
No audio	21
Amplifier shuts down after playing for a period of time	22
Distorted audio	22
Amplifier fuse keeps blowing	22
Whining noise when engine on	22
Ticking noise when engine on	23
7. GLOSSARY	23
8. SPECIFICATIONS	24
APX Amplifiers	24
DPX Amplifiers	25
9. LIMITED WARRANTY INFORMATION	26

1. FEATURES

The Clarion APX2180, APX4360, DPX2250, DPX1800 and DPX11500 amplifiers fit a variety of system configurations and provide these features:

- IVS - Input Voltage Selector with three sensitivity ranges on the gain control for the ability to connect to almost any source
- PFS - Precise Frequency Selector, a detented crossover frequency adjustment
- Ground loop isolation for RCA inputs
- Full frequency response with low distortion and exceptional signal-to-noise performance
- Advanced circuitry design provides bridgeable outputs for use in a variety of applications
- Independent electronic crossovers to aid in audio system design

The DPX1800 and DPX11500 each have 24dB per octave slope and full adjustment range from 30Hz to 250Hz.

The APX2180, APX4360, and DPX2250 each have 12dB per octave slope and full adjustment range from 50Hz to 550Hz.

- Bass boost circuit on APX series amps to reinforce low frequency signals
- Remote turn-on with “soft start” muting to prevent turn-on “thump”
- Protection circuits for overheating and speaker shorts
- APX2180, APX4360 and DPX2250 are 2-Ohm load capable of driving a variety of speaker systems
- DPX1800 and DPX11500 are 1-Ohm load capable to drive a variety of subwoofers
- Gold-plated input/output connectors and on-board automotive-type fuses
- Aluminum heat sink for efficient heat dissipation
- Low profile, compact footprint to accommodate space limitations
- SLI - Speaker Level Inputs on amps for integration with factory sound systems
- SSF - Adjustable subsonic filter on the DPX1800 and DPX11500 can be turned down to 10Hz
- Automatic load-sensing circuit (full power into 1 or 2 Ohms) on the DPX1800 and DPX11500



2. PRECAUTIONS

- Do not operate this product in ways other than those described in this manual.
- Do not disassemble or modify this product.
- Do not pour liquid or poke foreign objects into the unit. Water and humidity will damage internal circuitry.
- If the unit becomes wet, turn off all power and ask your authorized Clarion dealer to clean or service the unit.

Failure to observe these precautions may damage your car or the amplifier, and may void the warranty.

WARNING

Exposure to continuous sound levels of 85dB or higher may result in hearing loss. Although Clarion products are capable of producing high sound pressure levels, please use your product at reasonable levels.

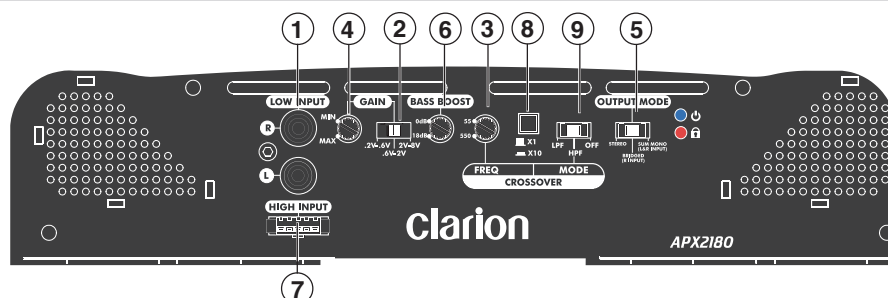
While operating your vehicle, please observe all local sound ordinances for your safety.

Installation

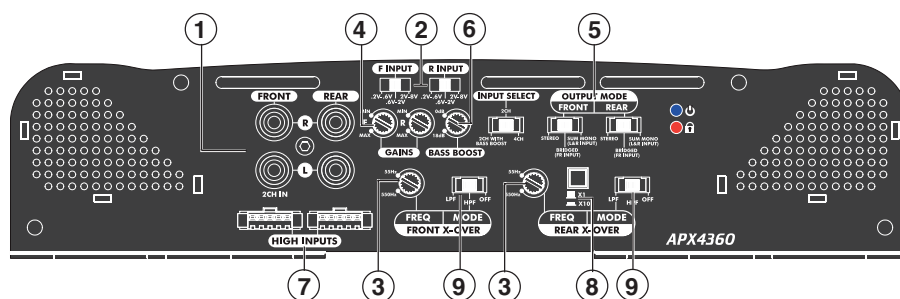
Installation of mobile audio and video components requires experience with a variety of mechanical and electrical procedures. Although this manual provides general installation and operation instructions, it does not show the exact installation methods for your particular vehicle.

If you do not have the required knowledge and experience to successfully complete the installation, consult an authorized Clarion dealer about professional installation options.

3. CONTROLS



APX2180 signal connections and audio adjustments

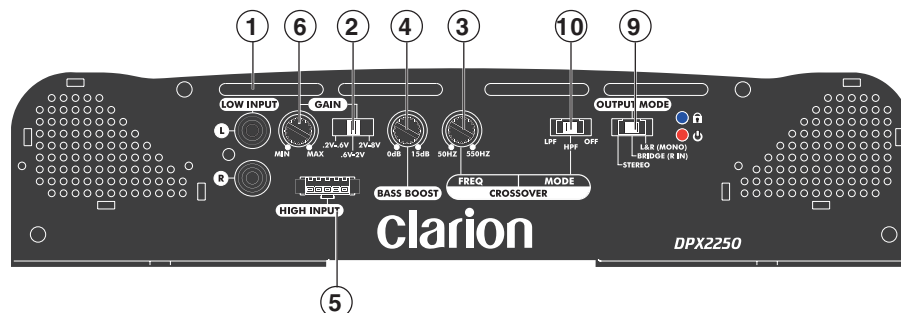


APX4360 signal connections and audio adjustments

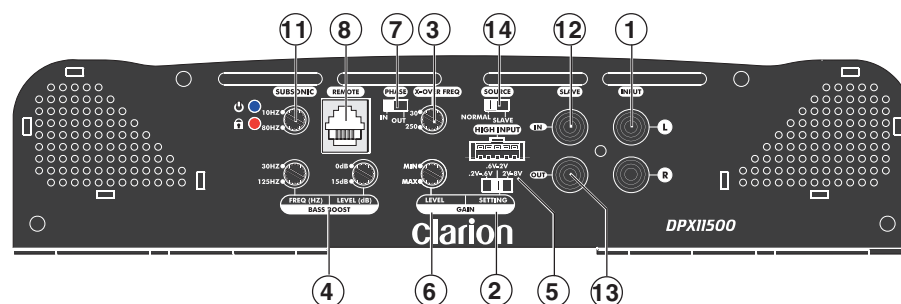
- | | |
|-------------------------------------|--|
| 1. RCA input jacks | 6. BBC (Basic Boost Control) |
| 2. IVS (Input Voltage Selector) | 7. SLI (Speaker Level Input) connector |
| 3. PFS (Precise Frequency Selector) | 8. Crossover frequency multiplier |
| 4. Gain control | 9. Crossover function switch |
| 5. Output mode switch | |



English



DPX2250 signal connections and audio adjustments



DPX1800 and DPX11500 signal connections and audio adjustments

- | | |
|-------------------------------------|--|
| 1. RCA input jacks | 8. RLC (Remote Level Control) port |
| 2. IVS (Input Voltage Selector) | 9. Output mode switch |
| 3. PFS (precise Frequency Selector) | 10. Crossover function switch |
| 4. BBS (Bass Boost Control) | 11. Subsonic filter frequency selector |
| 5. SLI (Speaker Level Inputs) | 12. Slave RCA jack |
| 6. Gain control | 13. RCA output jack |
| 7. PCS (Polarity Control Switch) | 14. Master/Slave selector |

4. OPERATIONS

Selecting input voltage

APX and DPX amplifiers accommodate a wide range of signal input voltages (0.2V to 8V). This wide range is split up into three ranges, which are accessible through switches located in the “Gain” area of the amplifier.

- 0.2V-0.6V selects an input sensitivity range between 200mV and 600mV.
- 0.6-2V selects an input sensitivity range between 600mV and 2V.
- 2V-8V selects an input sensitivity range between 2V and 8V.

The gain rotary control operates within these voltage windows.

Note:

Most decks, even 4V and 5V units do not operate at full output voltage. This requires the switch to be set in the 0.6-2V range.

Setting the operating level

The gain switches allow you to set the nominal operating level of the amplifier from 0.2 to 8V for RCA inputs or 500mV to 5V for speaker level inputs. This wide adjustment range accommodates virtually any source unit brand.

Once you set the correct range using the IVS, you must adjust the gain to match the amplifiers sensitivity to that of the source unit. The gain control is not a volume control. It exists only to allow an amplifier to be used with different models and brands of head units.

Improving bass sound

The amplifiers feature a narrow-frequency band bass boost circuit (known as “high-Q”). Acting much like an equalizer, the bass boost control lets you tune low-frequency audio response to compensate for a less than ideal subwoofer enclosure design. The added boost produces rich, full bass tones that are normally difficult to reproduce in the car audio environment.

- The APX2180, APX4360, and DPX2250 have a switchable gain that is fixed at 45Hz. If you don’t want to boost the bass frequencies, set this control to “OFF.”
- The DPX1800 and DPX11500 have a variable-frequency bass boost control from 30Hz to 125Hz. They do not have a bass boost on/off switch, but a level control that goes from 0dB to 15dB.

CAUTION

This control can dramatically increase the power output level and could cause speaker damage if you over use it.



Matching subwoofer output to mid-range speakers

The DPX1800 and DPX11500 feature a polarity control switch for reversing the polarity of the output signal. This can be useful when matching the acoustic output of your subwoofers to the output of your mid-range speakers.

Connecting directly to a head unit

The amps provide connections directly to a head unit without a pre-amp output, such as a factory-installed head unit.

WARNING

When using the speaker (high-level) inputs, the black wire must be grounded at the radio. Failure to do so will result in noise and/or improper operation.

Care and maintenance

Cleaning the case

Use a soft, dry cloth to gently wipe dust and dirt from the unit.

Do not use benzene, thinner, car cleaner, or other cleaners. These substances may damage the unit or cause the paint to peel.

Servicing the unit

In the event that trouble arises, never open the case or disassemble the unit. The internal parts are not serviceable by the user. Opening any components will void the warranty.

CAUTION!

Changes or modifications to this product not approved by the manufacturer will void the warranty and will violate FCC approval.

5. INSTALLATION AND WIRING

Read these instructions and the following precautions carefully.

What is included in the box

In addition to this manual, the box contains:

- Amplifier
- High-level speaker input harness

Mounting precautions

If you lack the necessary skills, do not install the amplifier yourself. See your authorized Clarion Dealer for installation recommendations.

- This unit is exclusively for vehicles with a negative ground, 12V power supply.
- This unit requires additional mobile audio components for proper operation.
- Choose a location in the vehicle that provides adequate ventilation around the amplifier. Although any moving air dissipates heat, cool air should run along the length of the fins rather than across them.

CAUTION

Although Clarion amplifiers include heat sinks and protection circuits, mounting an amplifier in a tight space without any air movement will reduce performance and damage the unit's internal circuitry over time.

The DPX1800 does not have a fan. Install it such that air can flow to the bottom of the amplifier.

The DPX11500 has two fans. Mounted in the ends of the unit, they blow through the length of the amplifier. Ensure a 3-inch clearance between the power/speaker and the control ends for proper ventilation.

- Mount the amplifier on a firm, flat surface away from subwoofer enclosures or to any area that is prone to vibration. Do not install the amplifier on plastic or on any other combustible material.
- For easy system setup, mount the amplifier so that the adjustment controls are accessible after installation.



- Always use great care when attaching anything to a vehicle! Check clearances on all sides of the planned installation before drilling any holes or installing any screws.
- Make sure the holes you plan to drill will not cut into the fuel tank, fuel lines, break lines (under the chassis) or electrical wiring. Don't guess. Check first.

Wiring precautions

Read all wiring precautions. If you are not sure of the connections, contact your authorized Clarion Dealer.

- Do not open the case. There are no user-serviceable parts inside. If you require assistance, consult your Clarion Dealer or an authorized Clarion Service Center.

Power

- Before you start, make sure the source unit's power switch is off.

WARNING!

To prevent short circuits during installation, disconnect the vehicle's negative (-) battery lead before making any power connections.

Fuses

- To protect the vehicle from fire or explosion in the event of a collision, add an external fuse to the amp's positive (+) power lead and connect it as close as possible to the vehicle's plus (+) battery terminal.

Use a fuse rated to the total current consumption of the amplifier. Fuses mounted near the battery should be ~10 Amps bigger than fuses on the amplifier itself.

If you are using more than one amplifier, add the total current consumption for the entire system and use the closest available fuse. For example, if you're connecting both an APX2180 and an APX4360, install a 100 Amp fuse at the battery.

- Power wire size can greatly affect the performance of your audio system. The Power wire size table indicates the minimum power wire requirements for proper operation.

Power wire size table

<12 feet total electrical path length		12-22 feet total electrical path length	
Wire size	Maximum fuse	Wire size	Maximum fuse
8 Awg	70 Amp	8 Awg	40 Amp
4 Awg	170 Amp	4 Awg	50 amp
2 Awg	240 Amp	2 Awg	140 Amp
0 Awg	400 Amp	0 Awg	200 Amp

Cables

- Whenever possible, route power wire and signal wire on opposite sides of the vehicle. This prevents the signal cables from picking up electrically radiated noise.
- Protect all wire from damage. Where a power wire passes through the fire wall or near exposed metal edges, protect the wire with a rubber or plastic grommet. Use wire loom where possible for further protection.
- Extra cable can cause signal loss and act as an antenna for noise. Use only high-quality RCA cables that are no longer than necessary to make a direct connection with the source unit and amplifiers.
- Make sure each connection is clean and secure. Insulate final connections with electrical tape or shrink tubing.

CAUTION

Improper connections may result in unreliable operation and damage the amplifier or the vehicle.

Grounding the amplifier

- A good chassis ground connection is critical to minimize resistance and avoid noise problems.

Use the shortest wire possible. Clean off any paint, primer or sound deadening prior to making this connection.

To minimize resistance and avoid noise problems, securely connect the ground wire to the car chassis and the source unit ground. Using existing bolts is not recommended.

- The last connection you make should be the ground wire at the amplifier. As the power supply capacitors in the amplifier are not charged, a spark may be produced when you make this connection.

Use a test light with an incandescent bulb between the ground terminal and the power wire to charge these capacitors if this is a concern. The ground wire is the most important connection to the amplifier. Make sure it is both electrically and mechanically sound.

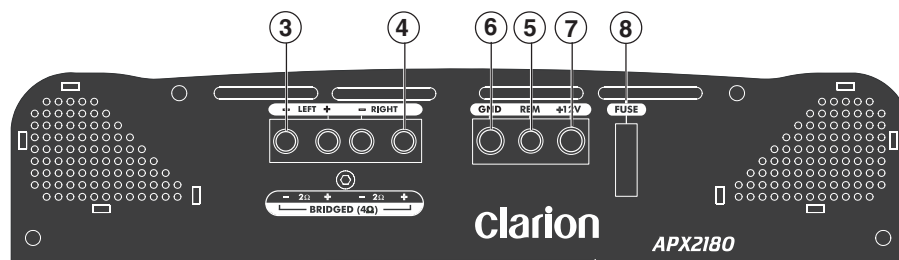
External fuse rating table

Model	Fuse rating
APX2180	30 Amp
APX4360	50 Amp
DPX2250	50 Amp
DPX1800	90 Amp
DPX11500*	200 Amp
*This amplifier has no amplifier-mounted fuses. Always use a 200 Amp fuse installed at the battery.	

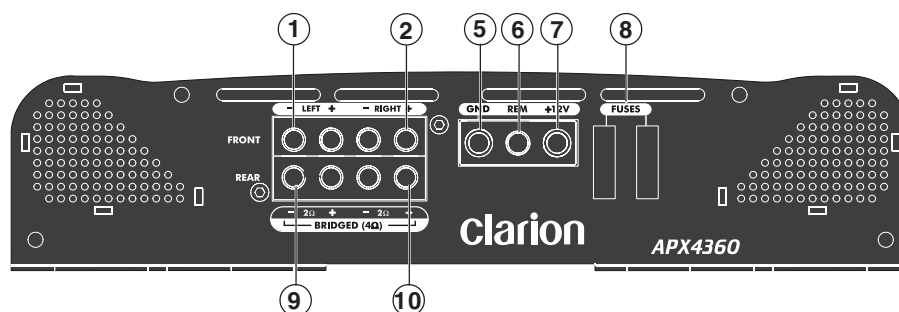


Power and speaker connections

The rear panel contains the power and speaker ports.

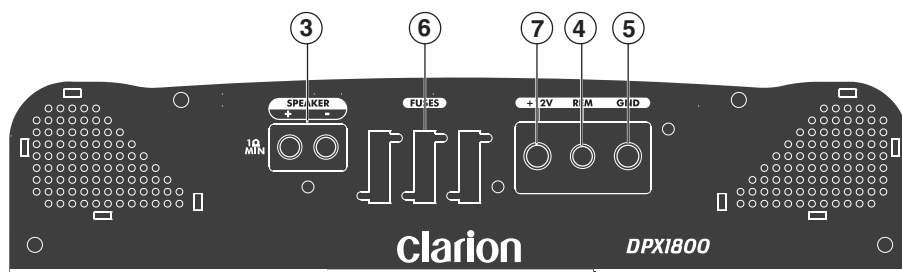


APX2180 power and speaker connections

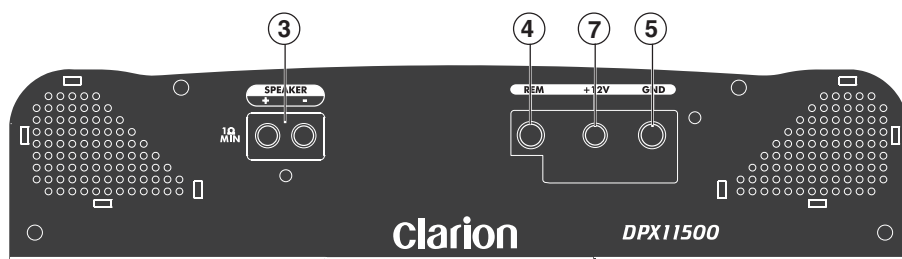


APX4360 power and speaker connections

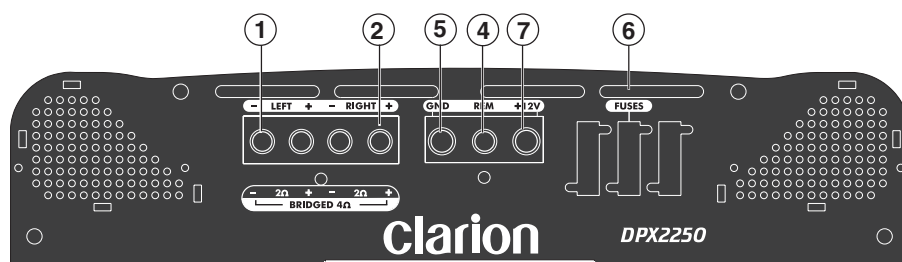
- | | |
|-------------------------------|-------------------------------|
| 1. Left front speaker output | 6. Ground input |
| 2. Right front speaker output | 7. Battery 12V input |
| 3. Left speaker output | 8. Fuses |
| 4. Right speaker output | 9. Left rear speaker output |
| 5. Remote turn-on input | 10. Right rear speaker output |



DPX1800 power and speaker connections



DPX11500 power and speaker connections



DPX2250 power and speaker connections

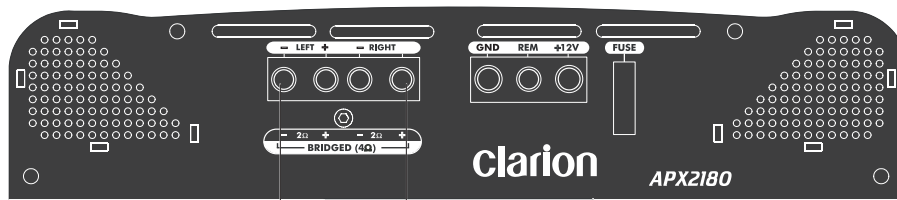
- | | |
|------------------------------|------------------------------|
| 1. Left rear speaker output | 4. Remote turn-on connection |
| 2. Right rear speaker output | 5. Ground connection |
| 3. Mono speaker output | 6. Fuses |
| | 7. Battery 12V connection |



Applications

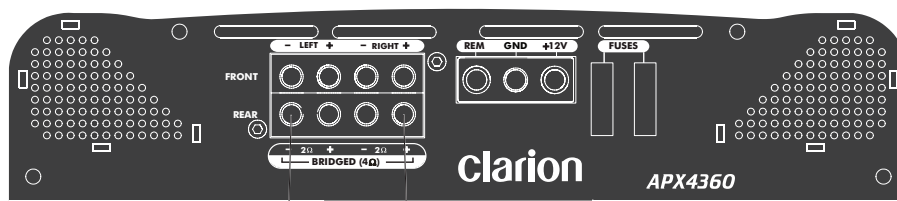
Mono subwoofer system (APX2180 and APX4360)

In this application, the rear channels are bridged for mono operation to drive a subwoofer while the front channels are available to drive a set of full-range speakers.



Stereo Amp configuration (APX2180)

- Set crossover mode to LP
- Set input mode switch to L + R (Mono)
- Set crossover frequency to ~80Hz
- Fine-tune crossover frequency to suit musical tastes and performances
- 4Ω min



Stereo Amp configuration (APX4360)

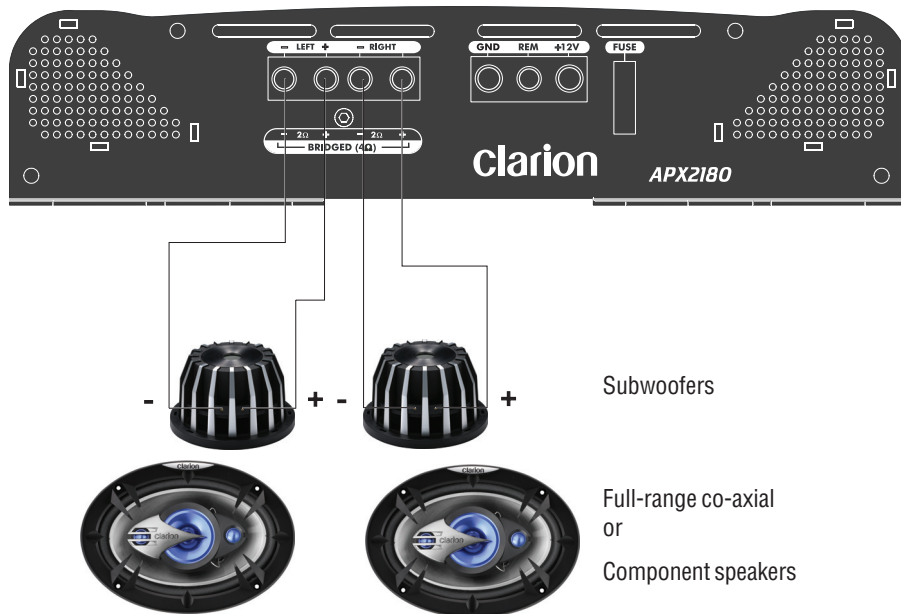
- Set rear crossover mode to LP
- Set input mode switch to L + R (Mono)
- Set crossover frequency to ~80Hz
- Fine-tune crossover frequency to suit musical tastes and performances
- 4Ω min

Note:

You may bridge the front, rear or both pairs of channels using the above settings.

Two-channel full-range or subwoofer system (APX2180)

In this application, the APX2180 is used to drive two speakers.



Subwoofers in stereo

- Set crossover mode switch to LP
- Set crossover frequency to ~80Hz
- Fine-tune as required
- 2 Ω

Full-range speakers or components in stereo

- Set crossover mode switch to OFF

Component speakers in stereo with separate subwoofer amp

- Set crossover mode switch to HP
- Set crossover frequency to
 - ~200Hz for 4-inch speakers
 - ~100Hz for 5.25-inch speakers
 - ~75Hz for 6.5-inch speakers
 - ~65Hz for 6 x 9-inch speakers

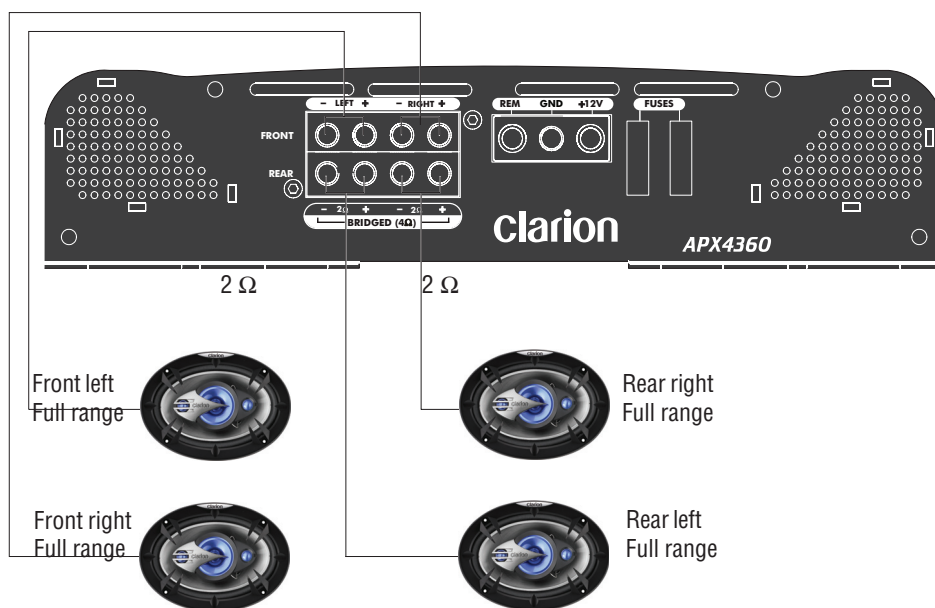
Subwoofers and component speakers at the same time

- Set crossover mode switch to OFF
- Install passive crossovers on subwoofers (inductor) and components (capacitor)



Four-channel high-power system (APX4360)

In this application, the APX4360 is used as a four-channel amplifier to drive four speakers in stereo with fader control.



Four speakers in stereo—full range

- Set crossover mode switch to OFF

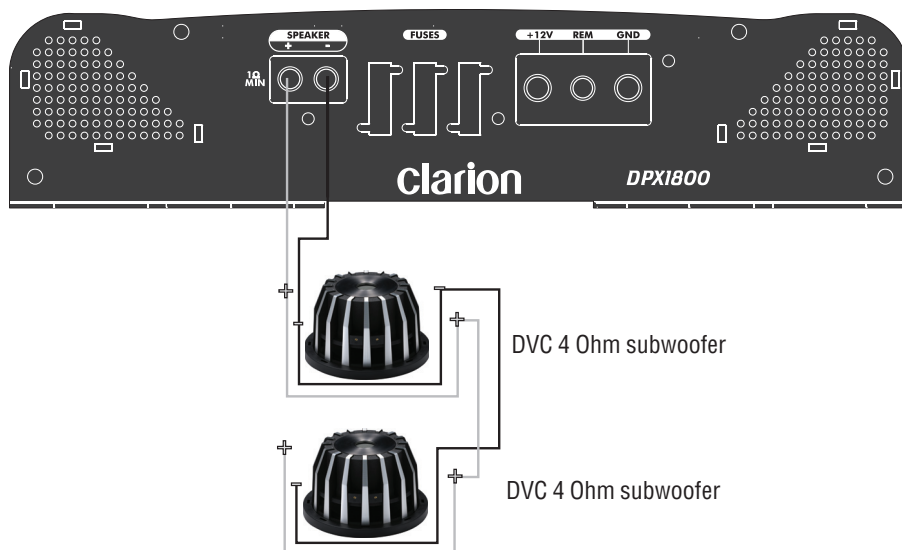
Four speakers in stereo—filtered

If the front or rear speakers are smaller than 5.25", you may decide to enable the crossover. The following apply to the front or rear channels with the small speakers.

- Set crossover mode switch to HP
- Set crossover frequency to ~200Hz for 4-inch speakers
~350Hz for 3.5-inch speakers

2-Ohm subwoofer system (DPX1800/DPX11500)

This application shows a DPX1800 or DPX11500 driving a pair of DVC 40hm subwoofers.



DPX1800/DPX11500 speaker configurations

Although the units produce maximum power when connected to a 1 or 2 Ohm load, a 2-Ohm load is recommended.

WARNING

Do not connect a load less than 1-Ohm as permanent damage may occur and the warranty will be nullified.

The following DPX1800 or DPX11500 configurations achieve full power.

Speaker configurations			
Driver type	Quantity	Wiring	Net load
Single-voice coil - 8 Ohm	8	Parallel	2 Ohm
Single-voice coil - 4 Ohm	4	Parallel	2 Ohm
Single-voice coil - 2 Ohm	2	Parallel	2 Ohm
Dual-voice coil - 8 Ohm	4	Parallel/Parallel	2 Ohm
Dual-voice coil - 4 Ohm	2	Parallel/Parallel	2 Ohm
Dual-voice coil - 2 Ohm	1	Parallel	2 Ohm

Other speaker configurations are possible using a combination of series and parallel wiring. See your authorized Clarion dealer for assistance.



DPX1800 and DPX11500 stackable configurations

In this mode, the master amp's front-panel controls apply to all amplifiers. For example, setting the crossover frequency on the master sets it on all slaves. This works for all front-panel controls.

Multiple amplifiers can be daisy-chained together. For example, if you had six DPX1800s in a show car, you could control all of them from one master unit (and one remote).

The following describes the configuration of the amplifiers:

Master	<ul style="list-style-type: none">• Route input from the head into the normal mode inputs.• Set the master/slave switch to Master.• Route a single RCA cable from the Slave Out to first slave unit.
First slave	<ul style="list-style-type: none">• Set the master/slave switch to Slave.• Route a single RCA cable from the master Slave Out to the current amplifier's Slave In.
Additional slave(s)	<ul style="list-style-type: none">• Set the master/slave switch to Slave.• Route a single RCA cable from the previous amplifier's Slave Out to the current amplifier's Slave In.

Each amplifier can independently control separate speaker loads (assuming the phase switch on all amplifiers is set the same).

Or, to power a large single load (phase switch opposite on the amplifier), you can bridge across the amplifiers: + and + to load, - and - to each other. The master amp is "speaker +" for in-phase operation.

Any pair of amplifiers could also be bridged, but be careful to set the phase switches correctly.

Setting the gain

After completing the installation, follow these steps to set the gain control and perform the final system checks.

1. Turn the gain control all the way down (counterclockwise).
2. Select the proper input voltage range using the IVS. See "Selecting Input Voltage" in the "Operations" section of this manual.
3. Turn the vehicle's ignition switch on.
4. Turn the audio system on with the volume turned all the way down.
4. Set all tone or equalization controls to flat positions and turn loudness off.
5. Play a CD and turn the volume up on the head unit until you hear distortion. This should be most of the way up.

6. Turn the volume back down slightly.
7. Slowly increase the gain control (clockwise). Stop when you hear a slight audio distortion.

When the gain is properly set, you should achieve maximum undistorted output with the volume turned up all the way, not half way.

If an oscilloscope is available, monitor the output of the amplifier with the scope, watching for clipping of the waveform. Set the gain so that only minor clipping occurs.

Adjusting the crossover

The APX2180, APX4360 and DPX2250 amplifiers feature fully-adjustable crossovers. The DPX1800 and DPX11500 do not have a way to disable the low-pass 24dB slope crossover.

1. On the APX2180, APX4360, and DPX2250, use the X-Over mode switch to select either LP (low pass) or HP (high pass) or OFF for full range.
2. Using the Frequency (Hz) selection control, select the frequency.

Setting the bass boost

1. Initially set the bass boost control to the OFF position.
2. Listen to a variety of music styles (for example, rock, rap, etc.) and switch the bass boost control on until you notice an increase in low bass response.

Note:

Using the bass boost requires the amplifier to produce a great deal of additional power. Use bass boost sparingly.

CAUTION

If you hear a pop caused by speaker overexertion, lower the bass boost to prevent damage to the speaker.

Final system checks

1. Start the engine and turn on the source unit.
2. After a two-second delay, slowly increase the volume control and listen to the audio.

If you hear any noise, static, distortion or no sound at all, check the connections and refer to Troubleshooting. Depending on your system, the volume may become quite loud even at moderate volume control settings. Until you get an “audio feel” for the system’s power, use care when adjusting the controls.

3. Turn the balance controls to their extreme positions and listen to the results.

Audio output should match control settings (audio from the left speaker when balance is left).



4. Increase the volume and verify that the amplifier reproduces the audio at full frequencies without distortion.

If you hear distortion check the connections and verify that the gain control is set correctly. Another cause of distortion could be underpowered or damaged speakers. Refer to Troubleshooting.

6. Troubleshooting

Indicator lights

The APX2180, APX4360, DPX1800 and DPX11500 have lights that indicate amplifier status.

<i>Blue top LED</i>	<i>Red end-panel light</i>	<i>Blue end-panel light</i>	<i>Meaning</i>
on	off	off	Amplifier running normally
on	alternating between red and blue		In thermal protection mode
slow blink	slow out-of-sync blink	off	Over voltage; reduce the input voltage
quick blink	quick in-sync blink	off	Short circuit protection
3 blinks, then pause	3 blinks, then pause	off	Repeated shorts detected; remove the short circuit, wait 5 minutes for error condition to clear; or clear condition by removing the main power, for example, by pulling the fuse.

No Audio

- **Low or no remote turn-on voltage:** check remote connections at the amplifier and source unit.
- **Blown amplifier fuse:** replace with a new fast-blow fuse (same rating).
- **Power wires not connected:** check battery and ground wiring at the amplifier and check the battery connections.
- **Speaker leads shorted:** check speaker continuity to ground; it should not show a common ground.
- **Speakers not connected or are blown:** check speaker connections at the amplifier and measure at speakers. Measure coil impedance at amplifier with speaker wires disconnected.

Amplifier shuts down after playing for a period of time

- **Thermal protection circuits are shutting the amplifier off:** Check the location for adequate ventilation. Relocate amplifier as required. Consult an authorized Clarion audio dealer.

Distorted audio

- **Gain is not properly set properly:** review the instructions for setting the gain.
- **Speaker cones are damaged:** inspect each speaker cone for signs of damage, such as a frozen cone, burnt smell, separated or ripped surround or separated spider.

Amplifier fuse keeps blowing

- **Incorrect wiring or short circuit:** review the installation and check all wiring connections.
- **Amplifier being driven too hard:** Turn down the volume, gain or bass boost.
- **Undersized or faulty fuse installed:** Replace the amplifier fuse with the same rating fuse as the one that shipped with the unit.

Note:

The DPX11500 ships with a 200 Amp, ANL-type fuse; mount it external to the unit, near the battery.

Fuse rating table

Model	Fuse rating
APX2180	30 Amp
APX4360	50 Amp
DPX2250	50 Amp
DPX1800	90 Amp
DPX11500	200 Amp

Whining noise when engine on

- **RCA cables too close to the power wire:** Separate RCA and power cables.
Ground loops are caused by a mismatch in the ground potential (voltage) between two sources. Current flows through the shield of the RCA cable and is quickly picked up by the amplifier. There are several ways to solve this problem:
 - Re-ground the amplifier to a more electrically conductive location.
 - Re-ground the head unit to a more electrically conductive location.
 - Run a ground wire from the head unit to the amplifier ground.
 - Upgrade or replace the ground wire on the battery and alternator.
 - Run a ground cable from the negative terminal of the battery to the amplifier.
 - Wire the entire audio system using a single connection point to the chassis.
- **Induced noise:** Relocate components away from electrical noise sources:
 - Engine control computers
 - ABS brake control modules.



Ticking noise when engine on

- High voltage ignition problem: Check for problems with the ignition system and replace components as required.
 - Cracked distributor caps
 - Carbon traces on plug wires
 - Loose spark plugs

7. Glossary

Crossover: A device that limits the range of frequencies sent to a speaker or amplifier.

dB: decibel, a measurement of the relative difference in power or intensity between two acoustic signals.

Equalizer: Component that boosts or cuts sound signal frequencies to improve the quality of the sound.

Gain control: gain is the amount of amplification (voltage, current or power) of an audio signal expressed in dB.

Hz: Abbreviation for Hertz, a unit of frequency equal to one cycle per second.

IVS: Input Voltage Selector

Octave: the musical principle of dividing sound frequencies into the eight notes of the musical scale.

Ohm: unit of electric resistance

PFS: Precise Frequency Selector

RCA input/output: port through which sound travels in and out of the system; "RCA" refers to the type of connector, which was first manufactured by the Radio Corporation of America.

Slope: how fast the sound gets quieter rated in dBs. The higher the dB number, the faster the frequency drops off.

8. Specifications

Note:

The technical data and the design of the equipment may change without prior notice for the sake of technical improvements.

APX Amplifiers

Parameter	APX4360	APX2180
Maximum power output	160W x 4	160W x 2
Continuous rated power	90W x 4	90W x 2
Typical power in bridged mode	300W x 2	300W x 1
Typical power in 2-Ohm load	160W x 4	150W x 2
THD (1KHz, 10W, 40 Ohms)	≤0.025%	≤0.025%
IM distortion	≤0.08%	≤0.08%
S/N (A-weighted)	≥ 92dB	≥ 93dB
Floor noise	≤2mV	≤2mV
Channel separation	≥ 70dB	≥ 70dB
Frequency response	10Hz to 50kHz	10Hz to 50kHz
Line level input sensitivity	200mV to 8 Volts	200mV to 8 Volts
Speaker level input sensitivity	600mV to 20 Volts	600mV to 20 Volts
Input impedance	33K Ohms	33K Ohms
Allowable battery voltage	10.5 to 16.5 Volts	10.8 to 16.5 Volts
Size	16"x12"x2 7/8"	12"x12"x2 7/8"



These specifications are Amplifier Power Standard CEA-2006 Compliant.



DPX Amplifiers

Parameter	DPX11500	DPX1800	DPX2250
Maximum power output	1900W	1000W	150W x 2
Continuous rated power	430W x1 (11Hz-220Hz)	430W x1 (11Hz-220Hz)	125Wx2
Typical power in bridged mode	Not bridgeable; stackable with second DPX11500	Not bridgeable; stackable with second DPX1800	400W
Typical power in 2-Ohm load	1500W	800W	200W x 2
Typical power in 1-Ohm load	1500W	700W	N/A
S/N (A-weighted)	>100dB	≥ 79dB	80dB
Floor noise	1mV	1mV	1.5mV
Channel separation	Mono	Mono	70dB
Frequency response (±1.0dB)	16 to 150Hz	16 to 150Hz	18 to 30 kHz
Line level input sensitivity	0.2 to 8V with IVS	0.2 to 8V with IVS	0.2 to 8V with IVS
Input impedance	22K Ohms	22K Ohms	22K Ohms
Allowable battery voltage	10 to 16 Volts	10 to 16 Volts	10 to 16 Volts
Size	21 1/4"x12"x2 7/8"	19 1/4"x12"x2 7/8"	13 1/4"x12"x2 7/8"



These specifications are Amplifier Power Standard CEA-2006 Compliant.

9. LIMITED WARRANTY INFORMATION

For USA and Canada only

Except as noted, Clarion products purchased from an authorized Clarion Dealer are warranted against all defects in materials and workmanship for a period of one (1) year from date of original purchase.

The following Clarion products noted below ** are warranted against all defects in materials and workmanship for a two (2) year period from the date of original purchase when purchased from **AND** installed by an authorized Clarion dealer.

** DRZ9255 DXZ865MP DXZ765MP DXZ665MP DXZ465MP DFZ675MC DPX11500 DPX1800 DPX2250

All Clarion cables, wires and other accessories if purchased from an authorized Clarion dealer are warranted against all defects in materials and workmanship for ninety (90) days from the date of original purchase.

ALL PURCHASES OF CLARION PRODUCTS FROM NON-AUTHORIZED CLARION DEALERS ARE SUBJECT TO FURTHER WARRANTY RESTRICTIONS AS DESCRIBED BELOW.

The conditions of this Limited Warranty and the extent of responsibility of Clarion Corporation of America ("Clarion") under the Limited Warranty are as follows:

- 1. PROOF OF DATE OF PURCHASE FROM AN AUTHORIZED CLARION DEALER WILL BE REQUIRED FOR WARRANTY SERVICE OF THIS PRODUCT. IN THE CASE OF THE TWO (2) YEAR LIMITED WARRANTY FOR THE CLARION PRODUCTS NOTED ABOVE, PROOF OF DATE OF PURCHASE AND PROOF OF INSTALLATION BY AN AUTHORIZED CLARION DEALER IS REQUIRED. INFORMATION ABOUT CLARION AUTHORIZED WARRANTY SERVICE CENTERS MAY BE OBTAINED BY CONTACTING CLARION AT THE ADDRESS LISTED BELOW.**
2. This Limited Warranty will become void if service performed by anyone other than an approved Clarion Warranty Service Center results in damage to the products.
3. This Limited Warranty does not apply to any product which has been subject to misuse, neglect or accident, or which has had the serial number altered, defaced or removed, or which has been connected, installed, adjusted or repaired, other than in accordance with the instructions furnished by Clarion.
4. This Limited Warranty does not cover car static or other electrical interferences, tape head or laser pick-up cleaning or adjustments, or labor costs for the removal or reinstallation of the unit for repair.
5. The sole responsibility of Clarion under this Limited Warranty shall be limited to the repair of the product or replacement of the product, at the sole discretion of Clarion.
6. Product must be shipped in its original carton or equivalent carton, fully insured, with shipping charges prepaid. Clarion will not assume any responsibility for any loss or damage incurred in shipping.
7. CLARION PRODUCTS PURCHASED FROM A SOURCE OTHER THAN AN AUTHORIZED CLARION DEALER, INCLUDING ANY AND ALL PURCHASES VIA THE INTERNET FROM A NON INTERNET AUTHORIZED CLARION DEALER, SHALL NOT BE COVERED BY ANY CLARION LIMITED WARRANTY TO THE EXTENT ALLOWED BY APPLICABLE LAW. IN THE EVENT AND TO THE EXTENT APPLICABLE LAW PROHIBITS ELIMINATION OF WARRANTIES UNDER THESE CIRCUMSTANCES, THE APPLICABLE LIMITED WARRANTY PERIOD SHALL BE DEEMED TO BE FIFTEEN (15) DAYS FROM THE DATE OF ORIGINAL PURCHASE.
8. ALL IMPLIED WARRANTIES EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW SHALL HAVE NO GREATER DURATION THAN THE WARRANTY PERIOD SET FORTH ABOVE. UNDER NO CIRCUMSTANCES SHALL CLARION BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT. BECAUSE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.
- 9. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**
10. The laws of the state of California shall govern and control this Limited Warranty, its interpretation and enforcement.
11. Should you have any difficulties with the performance of this product during the warranty period, please call Clarion or visit our web site for a listing of Authorized Warranty Service Centers in your area. You may also contact Clarion Customer Service at the address listed below for any service you may need with Clarion products.

In USA
Clarion Corporation of America
Attn: Customer Service Manager
661 W. Redondo Beach Blvd
Gardena, CA. 90247-4201
1-800-GO-CLARION (310)327-9100
www.clarion.com

In Canada
Clarion Canada, Inc.
Warranty Service Center
2239 Winston Park Drive
Oakville, Ontario L6H 5R1
(905)829-4600
www.clarioncanada.com



English





Clarion Corporation of America

All Rights Reserved. Copyright © 2006: Clarion Corp. of America

